

Application No.: 10/521,351

Docket No.: H6808.0071/P071

REMARKS

Applicants' undersigned representative wishes to thank Primary Examiner Martinell for the courteous and helpful telephone interview that was conducted on September 18, 2008. The interview included a discussion of the Amendment that was filed the same day.

New claims 29-31 have now been added. The application now contains claims 5, 6 and 13-31 – four independent claims and a total of twenty-one claims. The applicable fee for the twenty-first claim is being submitted concurrently herewith. Please charge any deficiency in the fees associated with these papers to Deposit Account 04-1073. Applicants reserve the right to pursue the original claims and other claims in this and other applications.

Claims 19-28 are rejected 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Reconsideration is respectfully requested. Claims 19-28, like independent claims 5 and 6, each refer to “phenotypes caused by one or more differences in polymorphism patterns.” Support for the limitation appears in the original disclosure, page 8, lines 5-9 (“... phenotypes caused by differences in polymorphism patterns”). The Office Action does not identify any “new matter” in claims 19-28. Therefore, the rejection should be withdrawn. Please note, the claims are not limited to any “particular” polymorphism or phenotype, much less to any causal relationship between a “particular” polymorphism and a “particular” phenotype.

By way of illustration, the present invention relates to the method shown in Figs. 6 and 7, including the steps of:

- (a) receiving positional information (Fig. 6, SA8),
- (b) obtaining a polymorphism pattern associated with the positional information (SA10),
- (c) transmitting the polymorphism pattern (Fig. 7, SA11),
- (d) receiving semantic information corresponding to the polymorphism pattern (SA16),

Application No.: 10/521,351

Docket No.: H6808.0071/P071

(e) making a determination as to whether positional information received in step (d) matches positional information related to the polymorphism pattern (SA17), and in response to the determination, alerting the party that received the polymorphism pattern transmitted in step (c) (SA18).

Claims 5, 6 and 13-18 are rejected under 35 U.S.C. § 103 as being unpatentable over Boyce-Jacino or Denton in view of Maloney or Mathias. Reconsideration is respectfully requested. Claim 5 recites the steps of “transmitting [a] polymorphism pattern,” “receiving semantic information corresponding to the polymorphism pattern [and/or information associated with the semantic information],” and “making a determination as to whether . . . positional information received in [the receiving step] matches positional information related to the polymorphism pattern.”

Boyce-Jacino does not disclose or suggest the above-quoted steps of claim 5, especially not in the recited combination. The Office Action, pages 2-3, states that Boyce-Jacino “deals with SNPs . . . and thus, necessarily . . . deals with positional information since SNPs can only be meaningful within the context of position in compared nucleic acid sequences.” The Office Action does not, however, point to anything in Boyce-Jacino which might meet the recited method steps of claim 5. Just because Boyce-Jacino “deals” with SNPs does not mean that Boyce-Jacino suggests “making a determination as to whether . . . positional information received in [the recited receiving step] matches positional information related to the polymorphism pattern.”

Boyce-Jacino does not suggest anything with respect to whether one piece of positional information matches another. Moreover, Boyce-Jacino does not refer to “compared nucleic acid sequences,” contrary to the Office Action. Boyce-Jacino refers to a system for providing clinical profile information to an individual over the Internet. In operation, a client provides a biological sample, the sample is analyzed to provide single nucleotide polymorphism data, the data is stored in a database, and the client is provided with a user name and password to gain access to, and provide others access to, the stored data.

Application No.: 10/521,351

Docket No.: H6808.0071/P071

Denton is no more relevant than Boyce-Jacino, and the Office Action provides no explanation to the contrary. Denton, like Boyce-Jacino, does not disclose or suggest the steps of “transmitting the polymorphism pattern,” “receiving semantic information corresponding to the [transmitted] polymorphism pattern . . . and/or information associated with the semantic information,” and “making a determination as to whether the positional information received in [the recited information receiving step] matches positional information related to the polymorphism pattern.”

Maloney and Mathias are cited as secondary references for other features (“alarms or warning messages”) (Office Action, page 2). Therefore, claim 5 should be allowable over the combination of Boyce-Jacino, Denton, Maloney and Mathias. Even when the references are considered together, they do not suggest the steps of “transmitting the polymorphism pattern,” “receiving semantic information corresponding to the [transmitted] polymorphism pattern . . . and/or information associated with the semantic information,” and “making a determination as to whether the positional information received in [the receiving step] matches positional information related to the polymorphism pattern.”

Moreover, there is also an additional reason why claim 5 should be allowable over the combination of Boyce-Jacino, Denton, Maloney and Mathias. That is, it would not have been obvious to modify the Boyce-Jacino system or the Denton system such that the system “alert[s] a party that received the polymorphism pattern transmitted in step (c) . . . in response to the determination made in step (e).” The Office Action of June 13, 2008, page 3, states it would have been obvious to “protect the data and alert the user of those data in [Boyce-Jacino or Denton] to preserve the integrity and confidentiality of the system,” in light of Maloney and Mathias. The Office Action does not, however, explain how or why the references, even when considered together, suggest alerting the “party that received the polymorphism pattern.” Nor is there any explanation as to how or why the references, considered together, suggest performing the alert “in response to the determination made in step (e).” The prior art references, even when considered together, do not suggest these important aspects of the invention of claim 5.

Application No.: 10/521,351

Docket No.: H6808.0071/P071

Moreover, as still another reason why claim 5 should be allowable over the combination of Boyce-Jacino, Denton, Maloney and Mathias, please consider that the Maloney and Mathias systems are distantly unrelated to the Boyce-Jacino and Denton systems, and they are even more unrelated to the present invention. The alerting/warning system of Maloney only responds to attacks over a computer network (§ 0071). The alerting or warning system of Mathias only can work where the system comprises, at least, a transponder attached to an item, an item detector to detect emissions of the transponder, and a reasoning system that can receive the item identifications from the detector (§§ 0016, 0023 and 0030). Applicants respectfully submit that Maloney and Mathias do not teach an alerting or warning system that can be applied to the present invention.

Further, please note that the Mathias system is for the purpose of preventing unauthorized removal of items in advance. By way of contrast, the system that is illustrated in Figs. 6 and 7 of the present application does not prevent unauthorized use or acquisition of polymorphism patterns, but it can find or reveal that all the polymorphism patterns related to the polymorphism addresses transmitted in Step SA11 were not used to acquire semantic information. Please refer to Applicants' specification, page 17, last paragraph.

Claims 6, 13 and 16, like claim 5, each recite the step of "making a determination as to whether the positional information received in step (d) matches positional information related to the polymorphism pattern transmitted in step (c)." Therefore, claims 6, 13 and 16, and dependent claims 14, 15, 17 and 18, should be allowable along with claim 5 and for other reasons. The remaining claims (claims 19-31) depend from claims 5, 6 and 13 and should be allowable along with claims 5, 6 and 13 and for other reasons.

Further, claims 6 and 16 each recite the steps of "disclosing information concerning a party that received the polymorphism pattern transmitted in step (c) to a third party, and wherein the third party is an organization for ensuring compliance with rules concerning transmission/reception of positional information or polymorphism pattern through a communication network, and wherein the step of disclosing is performed in response to the

Application No.: 10/521,351

Docket No.: H6808.0071/P071

determination made in step (e).” The prior art references, even when considered together, fail to suggest these important aspects of the invention of claims 6 and 16. Therefore, this is an additional reason why claims 6 and 16, and dependent claims 17, 18, 24-28 and 30, should be allowable.

Support for new claims 29-31 can be found in the original disclosure, including page 17, last paragraph. The prior art references, even when considered together, fail to disclose or suggest the step of “transmitting a warning that is made based on an evaluation that the probability of unauthorized use and acquisition is high, a notification that all the transmitted polymorphism patterns were not used, or an announcement regarding notification to a third party that all the transmitted polymorphism patterns were not used,” especially not in combination with the limitations of claims 5, 6 and 13, respectively.

For at least the foregoing reasons, allowance of the application as amended, with claims 5, 6 and 13-31, is solicited. Favorable action on the application is solicited.

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Respectfully submitted,

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